



State of Nevada

Technical Standards Committee

Standard

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1.0 PURPOSE

- A. This standard is intended to establish standards for acquisition of Desktop and Laptop Hardware in order to:
- Prevent the acquisition of technology that is defunct or out-dated while providing stable and reliable technology for operation on the State enterprise network;
 - Maximize the functionality of the State's information technology investment;
 - Allow the development of open systems client/server computing that encourages connectivity, portability, scalability, and interoperability, and
 - Replace technology that is obsolete and no longer supported by the manufacturer.
- B. To establish a desktop or laptop replacement and upgrade standard for the State of Nevada in order to utilize the benefits of next-generation office environments, simplify technical support issues, and increase the State's ability to deploy new solutions to business problems.

2.0 SCOPE

The policies set forth in this standard apply to all agencies of the Executive Branch and to all other agencies that wish to utilize the enterprise information transport (SILVERNET) with the exception of the Nevada System for Higher Education (NSHE) and the Nevada Criminal Justice Information Computer System.

The standards set forth in this document will be used as a guideline to initiate replacement of PCs throughout the enterprise:

- Before the point of obsolescence,
- At the point in time when it is most cost effective, and
- At the point in time when it will enable the State to gain maximum advantage from its considerable investment in information systems.

3.0 EFFECTIVE DATES

The requirements of this standard are effective 90 days after sign-off by the Governor or his designee.

4.0 RESPONSIBILITIES

- A. All desktop or laptop purchases must be approved by the Department of Information Technology (DoIT) and the Department of Administration, Budget Division. Purchases must be made from open term contracts through the Department of Administration's Purchasing Division,
- B. These standards apply to all agencies of the Executive Branch and to all other agencies that wish to utilize the enterprise information transport (SILVERNET) with the exception of the Nevada System for Higher Education (NSHE) and the Nevada Criminal Justice Information Computer System.



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5.0 RELATED DOCUMENTS

NRS 242.115 and NRS 151
State of Nevada Glossary of Terms
<http://www.nitoc.nv.gov/>

6.0 STANDARD

Hardware Maintenance

Contractors normally provide warranties with new computer hardware. If available at the time of purchase, a hardware maintenance agreement should be purchased to cover the hardware's expected life based on the State's Computer Hardware phased replacement program (e.g. purchase a maintenance agreement that provides a total of four years of coverage for a desktop or laptop).

An Anti-virus program is required for all computers including desktops, laptops and CADD class workstations.

Desktop and Laptop Minimum Hardware Requirements

Desktop and laptop equipment purchases should continue to perform at the minimum levels established by the State, throughout the unit's life cycle. Therefore, processor revision and memory must sufficiently run a standard operating system and office suite. The unit must be serviceable by State technical support and include both a fixed disk large enough to support the current operating system and an office suite with at least a forecast 50% growth in size over the life cycle of the unit. A minimum of one CD/RW-ROM device shall be included in the unit for installing upgrades or patches necessary for the maintenance of the system. A network card must be included with any unit purchased to at a minimum allow for updates to the anti-virus software required to be installed on all desktops and laptops in the State. Any unit purchased must have a surge suppression device included to protect the unit from electrical damage.

Laptops must conform to the above as well as include a carrying case with space for any attachments included with the unit. If the laptop is to be used as a workstation is must include either a docking station or port replicator with a keyboard, mouse and monitor.

Cycle of Replacement

It is the State's policy to cycle replaced computers through the major classifications of technology users identified in this document. Desktops and laptops that have been replaced and are no longer appropriate for one classification of technology user should be used to upgrade and replace a desktop or laptop with older technology within the agency, provided that the desktop or laptop is no more than 4 years old, is still supported by the manufacturer, and has not reached obsolescence due to operating system changes or applications requirements. In this manner, the desktop or laptop with the oldest technology in the agency is phased out and the agency can continue to benefit from their investment in computer hardware.

It is the State's policy to replace desktops and laptops with the latest technology rather than to apply major upgrades to existing desktops and laptops. Current research indicates that:



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- Upgrading is expensive because, more often than not, multiple system components must be upgraded in order to achieve the intended performance improvement.
- The purchase price of the various hardware components needed to accomplish an upgrade will exceed the purchase price of a new computer.
- The cost of labor to install an upgrade to existing hardware will far exceed the cost of labor to install a new desktop or laptop.
- Upgraded desktops and laptops have uncertain maintenance profiles and support costs.
- Upgraded desktops and laptops have added administrative complexity.
- There is no increase in residual value of upgraded desktops and laptops.

Upgrading desktops and laptops tends to increase the overall complexity in the installed enterprise hardware base.

Classifications of Technology Users

There are two major classifications of technology users defined as:

- **Leading Edge Technology Users/Power Users**

Those agencies and individuals within the agency who need to be at the forefront of technology in order to:

- 1) Become the pilot agencies for other members of the enterprise network,
- 2) Interface with other entities, agencies and governments where such interface requires the utilization of the latest technology,
- 3) Regularly use very large spreadsheets, CAD/CAM, or other CPU or memory intensive applications.
- 4) Maintain positions and related duties such as engineering/civil engineering, network/system administrators, network monitoring, application developers, CADD/GIS developers.

- **Standard Technology Users**

Those agencies and individuals within the agency who require a standard level of technology include those who:

1. Have a standardized suite of applications on their desktops (e.g., word processing, spreadsheet, presentations); customized applications beyond the standardized suite. Statewide Financial, data warehouse, and/or mainframe interfaces etc..
2. May use desktops and laptops for database and decision-support; and often have access to state agency-specific applications, email, Intranets, Internet and Internet based applications/databases.
3. Maintain positions such as Professional/Administrative staff, operational support staff, technical and functional staff.

Replacement Schedule (desktops and laptops)



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The following is a general guideline for replacing desktops and laptops. Agencies should consult with DoIT for assistance in determining their specific replacement needs. Note: Security Risk – desktops and laptops that are more than 5 years old or are no longer supported by the manufacturer with system updates or have reached obsolescence due to operating system changes pose a security risk to the State should be replaced. Replacement schedules vary according to the two major classifications of technology users:

- **Leading Edge Technology Users**

- 1) Should maintain no more than two revisions behind the current state standard PC or workstation as specified by DOIT and State Purchasing
- 2) Should replace desktops and laptops every two to three years, depending on applications in use.

- **Standard Technology Users**

- 1) Should maintain no more than two revisions behind the current state standard PC or workstation as specified by DOIT and State Purchasing
- 2) Should replace desktops and laptops every four to five years, depending on applications in use.

- **State Agency Average**

- 1) For budgeting purposes, a state agency should separate their computers and users into the above categories. DoIT has found that this often results in a state agency replacement average of 20% to 25% per year.

7.0 7.0 EXCEPTIONS/OTHER ISSUES

Purchases must be made from open term contracts through the Department of Administration's Purchasing Division unless a specific departure has been requested in writing with justification and such departure has been authorized in writing by both DoIT and Purchasing.

8.0 DEFINITIONS/BACKGROUND

Nevada Revised Statute (NRS) 242.115 requires the Planning and Research Unit of the Planning and Programming Division of the Department of Information Technology (DoIT) to develop guidelines and procedures for the procurement and maintenance of the information systems of the Executive Branch of government.

NRS 242.151 requires the Director of the Department of Information Technology to advise agencies regarding the policy for Information Technology as that policy relates to items such as standards and criteria for the selection, location, and use of information systems.

State agency: The use of the term "State Agency" in this standard means every public state agency, bureau, board, commission, department, division or any other unit of the Executive Branch of the government of this state.



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Approved By		
Title	Signature	Date
Tech Standards Committee Chair	Signature on File	08/04/06
NV IT Operations Committee Chair	Signature on File	08/04/06
NV IT Strategic Planning Committee Chair	Signature on File	10/08/06

Document History		
Revision	Date	Change
A	11/21/2000	Initial release (CH_STANDARD_2.3.1).
B	10/22/2001	Annual Update (CH_STANDARD_2.3.2)
C	12/11/2003	Updated, changed to Control Number 5.02 and combined 2.5 into text.
D	01/12/2006	Major changes to entire document plus classification of technology users. Replaced the word PC with desktops and laptops... Was 5.02, now 7.03